



FLUOROCARBON CASE STUDY

CRYOGENIC PRESSURE RELIEF VALVE (PRV-c)

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THE CHALLENGE

The client was a major international valve manufacturer supplying safety critical valves into diverse markets. The focus was on upgrading an existing pressure relief valve which was originally designed for service temperatures of -50°C to +250°C

The new requirements for the Pressure Relief Valve to operate within the temperature range of -162°C to +50°C. The limiting factor was the temperature capabilities of the seat sealing material.

THE SOLUTION

For cryogenic applications, we frequently specify FL325 (PCTFE) which in this case was used whilst maintain the overall architecture of the original design.

FL325 (PCTFE) is an engineering thermoplastic with good thermal stability, good chemical resistance, very good physical properties, optical transparency and capable of being used at low temperatures and under radiation conditions.

THE OUTCOME

The pressure relief valve was successfully upgraded to enable operation within the required temperature range of -162°C to +50°C